IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (original) A pharmaceutical composition which is comprised of protein S and/or at least one functional variant thereof, wherein the protein S or the functional variant is present in an amount sufficient to provide neuroprotection.

2. (original) The composition of Claim 1, wherein protection against ischemia, hypoxia, re-oxygenation injury, or a combination thereof is provided in the nervous system of a subject in need of treatment.

3. (previously presented) The composition of Claim 1, wherein inhibition of apoptosis and/or promotion of cell survival is provided in the nervous system of a subject in need of treatment, while antithrombotic effects are minimized.

4. (previously presented) The composition of Claim 1, wherein the composition is adapted to protect one or more cell types in a subject's nervous system.

5. (previously presented) The composition of Claim 1, wherein the protein S or the functional variant acts through one or more receptors selected from the group consisting of annexin II and Tyro3/Axl receptor tyrosine kinases.

6. (original) A method of protecting one or more cell types of a subject's nervous system comprising administration of an effective amount of protein S and/or at least one functional variant thereof to the one or more cell types to provide neuroprotection.

7. (original) The method of Claim 6, wherein the protein S or the functional variant is a human protein S or functional variant.

8. (previously presented) The method of Claim 6, wherein the protein S or the functional variant has at least anti-thrombotic activity.

9. (previously presented) The method of Claim 6, wherein the protein S or the functional variant has at least anti-inflammatory activity.

10. (previously presented) The method of Claim 6, wherein the protein S or the functional variant at least inhibits apoptosis or acts as a cell survival factor.

11. (previously presented) The method of Claim 6, wherein the protein S or the functional variant acts through one or more receptors selected from the group consisting of annexin II and Tyro3/Axl receptor tyrosine kinases.

12. (previously presented) The method of Claim 6, wherein no protein C or activated protein C is administered.

13. (previously presented) The method of Claim 6, wherein there is no deficiency of protein S activity in the subject.

14. (previously presented) The method of Claim 6, wherein the protein S or the functional variant is administered to the subject after injury caused by at least ischemia, hypoxia, re-oxygenation injury, or a combination thereof.

15. (previously presented) The method of Claim 6, wherein the protein S or the functional variant is administered to the subject at risk for injury caused by at least ischemia, hypoxia, re-oxygenation injury, or a combination thereof.

16. (previously presented) The method of Claim 6, wherein the protein S or the functional variant is administered before and/or after diagnosis of disease or another pathological condition.

17. (previously presented) The method of Claim 6, wherein cerebral blood flow in the subject's brain is increased by administration of the protein S or the functional variant.

18. (previously presented) The method of Claim 6, wherein volume of the subject's brain which is affected by injury, infarction, edema, or a combination thereof is decreased by administration of the protein S or the functional variant.

Claims 19-21 (canceled)

22. (original) A process of screening for an agent which inhibits apoptosis and/or acts as a cell survival factor comprising:

(a) providing a library of candidate agents which are variants of protein S and

(b) selecting at least one agent by its ability to inhibit apoptosis and/or act as a cell survival factor.

23. (previously presented) A process of producing an agent which inhibits apoptosis and/or acts as a cell survival factor comprising: the process of Claim 22 and producing the at least one agent.

Claim 24 (canceled)